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(FILE 'HOME' ENTERED AT 15:17:30 ON 22 AUG 2006)

FILE 'HCAPLUS' ENTERED AT 15:17:51 ON 22 AUG 2006

E US20060013754/PN
L1 1 SEA ABB=ON PLU=ON US20060013754/PN
D ALL
SEL RN

FILE 'REGISTRY' ENTERED AT 15:18:53 ON 22 AUG 2006

L2 2 SEA ABB=ON PLU=ON (100224-74-6/BI OR 7631-86-9/BI)
D SCAN
L3 1 SEA ABB=ON PLU=ON 7631-86-9/RN
D SCAN
L4 1 SEA ABB=ON PLU=ON 100224-74-6/RN
D SCAN
D CRN STR
L5 7834 SEA ABB=ON PLU=ON 463-79-6/CRN
L6 2590 SEA ABB=ON PLU=ON 113-00-8/CRN
L7 76 SEA ABB=ON PLU=ON L5 AND L6
L8 4 SEA ABB=ON PLU=ON L7 AND 2/NC
D SCAN
E SODIUM WATER GLASS/CN
L9 1 SEA ABB=ON PLU=ON SODIUM WATER GLASS/CN
D SCAN
E POTASSIUM WATER GLASS/CN
E POTASSIUM WATER GLASS/CN
L10 1 SEA ABB=ON PLU=ON 1344-09-8/RN
L11 1 SEA ABB=ON PLU=ON POTASSIUM WATER GLASS/CN
D SCAN
D CN
D RN
L12 1 SEA ABB=ON PLU=ON 1312-76-1/RN
D SCAN
E SODIUM HYDROXIDE/CN
L13 1 SEA ABB=ON PLU=ON SODIUM HYDROXIDE/CN
D SCAN
D RN
L14 1 SEA ABB=ON PLU=ON 1310-73-2/RN
D SCAN
E POTASSIUM HYDROXIDE/CN
L15 1 SEA ABB=ON PLU=ON POTASSIUM HYDROXIDE/CN
D SCAN
D CN
D RN
L16 1 SEA ABB=ON PLU=ON 1310-58-3/RN
E SILICA SOL/CN
L17 1 SEA ABB=ON PLU=ON "SILICA SOL, PPTD., CRYSTALLINE-FRE
E"/CN
D SCAN
E SILICA GEL/CN
L18 1 SEA ABB=ON PLU=ON SILICA GEL/CN
D SCAN
D CN
L19 1 SEA ABB=ON PLU=ON ALUMINIUM/CN
D SCAN
D CN
D RN
L20 1 SEA ABB=ON PLU=ON 7429-90-5/RN
D SCAN

FILE 'HCAPLUS' ENTERED AT 15:35:06 ON 22 AUG 2006

D SCAN L1
L21 732874 SEA ABB=ON PLU=ON L3 OR SILICA OR SIO2
L22 52731 SEA ABB=ON PLU=ON SOLGEL# OR GELSOL# OR (SOL OR

SOLS) (2A) (GEL OR GELS OR GELLED OR GELLING# OR GELATION?)

L23 15436 SEA ABB=ON PLU=ON L21 (2A) (L22 OR SOL)

L24 QUE ABB=ON PLU=ON PRODUC? OR PROD# OR GENERAT? OR MANUF? OR MFR# OR CREAT? OR FORM## OR FORMING# OR FORMAT? OR MAKE# OR MADE# OR MAKIN# OR FABRICAT? OR SYNTHESI? OR PREPAR? OR PREP#

L25 4424 SEA ABB=ON PLU=ON L23 (3A) L24

FILE 'REGISTRY' ENTERED AT 15:47:22 ON 22 AUG 2006
D SCAN L4

FILE 'HCAPLUS' ENTERED AT 15:47:53 ON 22 AUG 2006

L26 1681 SEA ABB=ON PLU=ON L4 OR L8 OR GUANIDINE(A) (CARBONATE OR CARBONIC(A) ACID)

L27 1152 SEA ABB=ON PLU=ON L8

L28 226960 SEA ABB=ON PLU=ON L5

L29 8953 SEA ABB=ON PLU=ON L6

L30 1391 SEA ABB=ON PLU=ON L28 AND L29

L31 1199 SEA ABB=ON PLU=ON L7

L32 1897 SEA ABB=ON PLU=ON L26 OR L27 OR L30 OR L31

L33 77 SEA ABB=ON PLU=ON L21 AND L32

L34 2 SEA ABB=ON PLU=ON L23 AND L32
D SCAN

L35 18 SEA ABB=ON PLU=ON L21 AND (L22 OR SOL OR GEL) AND L32
D QUE L24

L36 QUE ABB=ON PLU=ON SUSPEN? OR DISPERS? OR COLLOID? OR EMULS? OR MICROEMULS? OR SLURR?

L37 26 SEA ABB=ON PLU=ON L21 AND L32 AND L36

L38 36 SEA ABB=ON PLU=ON L37 OR L35

L39 19 SEA ABB=ON PLU=ON L38 AND (BASE OR BASIC OR ALKALINE OR HYDROXIDE)

L40 27436 SEA ABB=ON PLU=ON L9 OR L10 OR SODIUM(3A) WATER(3A) GLASS?

L41 3938 SEA ABB=ON PLU=ON L11 OR L12 OR POTASSIUM(3A) WATER(3A) GLASS?

L42 394035 SEA ABB=ON PLU=ON L13 OR L14 OR (SODIUM OR NA) (A) (HYDROXIDE OR OH) OR NAOH

L43 163856 SEA ABB=ON PLU=ON L15 OR L16 OR (POTASSIUM OR K) (A) (HYDROXIDE OR OH) OR KOH

L44 6 SEA ABB=ON PLU=ON L38 AND ((L40 OR L41 OR L42 OR L43))
D SCAN

L45 20 SEA ABB=ON PLU=ON L39 OR L44

L46 8 SEA ABB=ON PLU=ON L35 AND (BASE OR BASIC OR ALKALINE OR HYDROXIDE)

L47 3 SEA ABB=ON PLU=ON L35 AND ((L40 OR L41 OR L42 OR L43))
D SCAN

L48 20 SEA ABB=ON PLU=ON (L44 OR L45 OR L46 OR L47)

L49 9 SEA ABB=ON PLU=ON (L46 OR L47)

L50 1 SEA ABB=ON PLU=ON L49 AND REACT?
D SCAN
D KWIC

L51 3 SEA ABB=ON PLU=ON L48 AND REACT?

L52 3 SEA ABB=ON PLU=ON L50 OR L51

L53 2 SEA ABB=ON PLU=ON L52 AND (PH OR ACID? OR BASIC?)

L54 2 SEA ABB=ON PLU=ON L53 AND (TEMP? OR HEAT? OR DEG OR DEGREE OR FAHRENHEIT OR CELCIUS OR CENTIGRADE OR KELVIN)
D SCAN

L55 15 SEA ABB=ON PLU=ON (L48 OR L38) AND (TEMP? OR HEAT? OR DEG OR DEGREE OR FAHRENHEIT OR CELCIUS OR CENTIGRADE OR KELVIN)
D SCAN

L56 QUE ABB=ON PLU=ON (DEG OR DEG) (A) (FAHRENHEIT OR F OR
 CELCIUS OR CENTIGRADE OR C OR KELVIN OR K)
 L57 0 SEA ABB=ON PLU=ON (L48 OR L38 OR L35) AND L56
 D QUE L55
 L58 9 SEA ABB=ON PLU=ON L35 AND (TEMP? OR HEAT? OR DEG OR
 DEGREE OR FAHRENHEIT OR CELCIUS OR CENTIGRADE OR
 KELVIN)
 L59 0 SEA ABB=ON PLU=ON L38 AND REACTOR?
 L60 0 SEA ABB=ON PLU=ON L35 AND REACTOR?
 L61 19025 SEA ABB=ON PLU=ON BET OR B(W)E(W)T
 L62 131419 SEA ABB=ON PLU=ON SURFACE(A)AREA
 L63 8292 SEA ABB=ON PLU=ON L61(2A)L62
 L64 4605 SEA ABB=ON PLU=ON M(W)G
 L65 0 SEA ABB=ON PLU=ON L35 AND (L63 OR L64)
 L66 0 SEA ABB=ON PLU=ON L38 AND (L63 OR L64)
 D QUE
 L67 2 SEA ABB=ON PLU=ON (L35 OR L38 OR L48) AND ((L61 OR
 L62 OR L63 OR L64))
 D SCAN
 D 1-2 KWIC
 L68 64 SEA ABB=ON PLU=ON (L21(A)(N OR AMINE))(2A)(RATIO OR
 PERCENT? OR PER(W)CENT? OR PROPORTION?)
 L69 1170 SEA ABB=ON PLU=ON L21(A)(N OR AMINE)
 L70 0 SEA ABB=ON PLU=ON (L35 OR L38 OR L48) AND L68
 L71 0 SEA ABB=ON PLU=ON (L35 OR L38 OR L48) AND L69
 L72 10 SEA ABB=ON PLU=ON (L35 OR L38 OR L48) AND (RATIO OR
 PERCENT? OR PER(W)CENT? OR PROPORTION?)
 D 1-10 KWIC
 L73 1 SEA ABB=ON PLU=ON (L35 OR L38 OR L48) AND MOLAR?
 D SCAN
 D KWIC
 L74 14927 SEA ABB=ON PLU=ON ZETA(A)(POT OR POTENTIAL?)
 L75 0 SEA ABB=ON PLU=ON (L35 OR L38 OR L48) AND L74
 L76 4113 SEA ABB=ON PLU=ON (L35 OR L38 OR L48) AND MV OR
 ((MILLI OR M)(W)(V OR VOLT?))
 L77 0 SEA ABB=ON PLU=ON (L35 OR L38 OR L48) AND L76
 L78 1483 SEA ABB=ON PLU=ON RETENTION?(A)AID?
 L79 0 SEA ABB=ON PLU=ON (L35 OR L38 OR L48) AND L78
 L80 12 SEA ABB=ON PLU=ON (L35 OR L38 OR L48) AND (?PAPER?
 OR CELLULOS?)
 L81 QUE ABB=ON PLU=ON IR OR INFRARED? OR INFRA(W)RED
 L82 2 SEA ABB=ON PLU=ON (L35 OR L38 OR L48) AND L81
 D SCAN
 L83 0 SEA ABB=ON PLU=ON (L35 OR L38 OR L48) AND L25
 L84 18 SEA ABB=ON PLU=ON (L35 OR L38 OR L48) AND (SOL OR
 GEL)
 L85 16 SEA ABB=ON PLU=ON L84 AND L24
 D QUE L34
 L86 31 SEA ABB=ON PLU=ON L34 OR L44 OR (L46 OR L47) OR L49
 OR L55 OR L58 OR L67 OR (L72 OR L73) OR L80 OR L82 OR
 L84 OR L85
 L87 19 SEA ABB=ON PLU=ON L86 AND L21 AND L32 AND (L22 OR
 SOL OR GEL?)
 D SCAN TI CC
 D L87 1-19 KWIC
 L88 185795 SEA ABB=ON PLU=ON L24(3A)(GEL OR SOL)
 L89 3 SEA ABB=ON PLU=ON L87 AND L88
 D SCAN
 L90 3 SEA ABB=ON PLU=ON L86 AND L88
 D SCAN
 D SCAN L1
 L91 257276 SEA ABB=ON PLU=ON PAPER?/SC,SX
 L92 2 SEA ABB=ON PLU=ON L86 AND L91
 D SCAN
 L93 101229 SEA ABB=ON PLU=ON L21(2A)GEL?
 L94 9 SEA ABB=ON PLU=ON (L23 OR L93) AND L86

L95 12 SEA ABB=ON PLU=ON (L89 OR L90) OR L92 OR L94
D SCAN
L96 20 SEA ABB=ON PLU=ON L87 OR L95
L97 8 SEA ABB=ON PLU=ON L87 NOT L95
L98 4 SEA ABB=ON PLU=ON L97 AND (HAIR? OR METAL? OR RNA)
D SCAN
L99 4 SEA ABB=ON PLU=ON L97 NOT L98
L100 16 SEA ABB=ON PLU=ON L95 OR L99

=> => D QUE STAT L100

L3 1 SEA FILE=REGISTRY ABB=ON PLU=ON 7631-86-9/RN
L4 1 SEA FILE=REGISTRY ABB=ON PLU=ON 100224-74-6/RN
L5 7834 SEA FILE=REGISTRY ABB=ON PLU=ON 463-79-6/CRN
L6 2590 SEA FILE=REGISTRY ABB=ON PLU=ON 113-00-8/CRN
L7 76 SEA FILE=REGISTRY ABB=ON PLU=ON L5 AND L6
L8 4 SEA FILE=REGISTRY ABB=ON PLU=ON L7 AND 2/NC
L9 1 SEA FILE=REGISTRY ABB=ON PLU=ON SODIUM WATER
GLASS/CN
L10 1 SEA FILE=REGISTRY ABB=ON PLU=ON 1344-09-8/RN
L11 1 SEA FILE=REGISTRY ABB=ON PLU=ON POTASSIUM WATER
GLASS/CN
L12 1 SEA FILE=REGISTRY ABB=ON PLU=ON 1312-76-1/RN
L13 1 SEA FILE=REGISTRY ABB=ON PLU=ON SODIUM HYDROXIDE/CN
L14 1 SEA FILE=REGISTRY ABB=ON PLU=ON 1310-73-2/RN
L15 1 SEA FILE=REGISTRY ABB=ON PLU=ON POTASSIUM HYDROXIDE/C
N
L16 1 SEA FILE=REGISTRY ABB=ON PLU=ON 1310-58-3/RN
L21 732874 SEA FILE=HCAPLUS ABB=ON PLU=ON L3 OR SILICA OR SIO2
L22 52731 SEA FILE=HCAPLUS ABB=ON PLU=ON SOLGEL# OR GELSOL# OR
(SOL OR SOLS) (2A) (GEL OR GELS OR GELLED OR GELLING# OR
GELATION?)
L23 15436 SEA FILE=HCAPLUS ABB=ON PLU=ON L21(2A) (L22 OR SOL)
L24 QUE ABB=ON PLU=ON PRODUC? OR PROD# OR GENERAT? OR MA
NUF? OR MFR# OR CREAT? OR FORM## OR FORMING# OR FORMAT?
OR MAKE# OR MADE# OR MAKIN# OR FABRICAT? OR SYNTHESI?
OR PREPAR? OR PREP#
L26 1681 SEA FILE=HCAPLUS ABB=ON PLU=ON L4 OR L8 OR GUANIDINE(
A) (CARBONATE OR CARBONIC(A) ACID)
L27 1152 SEA FILE=HCAPLUS ABB=ON PLU=ON L8
L28 226960 SEA FILE=HCAPLUS ABB=ON PLU=ON L5
L29 8953 SEA FILE=HCAPLUS ABB=ON PLU=ON L6
L30 1391 SEA FILE=HCAPLUS ABB=ON PLU=ON L28 AND L29
L31 1199 SEA FILE=HCAPLUS ABB=ON PLU=ON L7
L32 1897 SEA FILE=HCAPLUS ABB=ON PLU=ON L26 OR L27 OR L30 OR
L31
L34 2 SEA FILE=HCAPLUS ABB=ON PLU=ON L23 AND L32
L35 18 SEA FILE=HCAPLUS ABB=ON PLU=ON L21 AND (L22 OR SOL
OR GEL) AND L32
L36 QUE ABB=ON PLU=ON SUSPEN? OR DISPERS? OR COLLOID? OR
EMULS? OR MICROEMULS? OR SLURR?
L37 26 SEA FILE=HCAPLUS ABB=ON PLU=ON L21 AND L32 AND L36
L38 36 SEA FILE=HCAPLUS ABB=ON PLU=ON L37 OR L35
L39 19 SEA FILE=HCAPLUS ABB=ON PLU=ON L38 AND (BASE OR
BASIC OR ALKALINE OR HYDROXIDE)
L40 27436 SEA FILE=HCAPLUS ABB=ON PLU=ON L9 OR L10 OR SODIUM(3A
) WATER (3A) GLASS?
L41 3938 SEA FILE=HCAPLUS ABB=ON PLU=ON L11 OR L12 OR
POTASSIUM(3A) WATER (3A) GLASS?
L42 394035 SEA FILE=HCAPLUS ABB=ON PLU=ON L13 OR L14 OR (SODIUM
OR NA) (A) (HYDROXIDE OR OH) OR NAOH
L43 163856 SEA FILE=HCAPLUS ABB=ON PLU=ON L15 OR L16 OR
(POTASSIUM OR K) (A) (HYDROXIDE OR OH) OR KOH
L44 6 SEA FILE=HCAPLUS ABB=ON PLU=ON L38 AND ((L40 OR L41
OR L42 OR L43))

L45 20 SEA FILE=HCAPLUS ABB=ON PLU=ON L39 OR L44
 L46 8 SEA FILE=HCAPLUS ABB=ON PLU=ON L35 AND (BASE OR
 BASIC OR ALKALINE OR HYDROXIDE)
 L47 3 SEA FILE=HCAPLUS ABB=ON PLU=ON L35 AND ((L40 OR L41
 OR L42 OR L43))
 L48 20 SEA FILE=HCAPLUS ABB=ON PLU=ON (L44 OR L45 OR L46 OR
 L47)
 L49 9 SEA FILE=HCAPLUS ABB=ON PLU=ON (L46 OR L47)
 L55 15 SEA FILE=HCAPLUS ABB=ON PLU=ON (L48 OR L38) AND
 (TEMP? OR HEAT? OR DEG OR DEGREE OR FAHRENHEIT OR
 CELCIUS OR CENTIGRADE OR KELVIN)
 L58 9 SEA FILE=HCAPLUS ABB=ON PLU=ON L35 AND (TEMP? OR
 HEAT? OR DEG OR DEGREE OR FAHRENHEIT OR CELCIUS OR
 CENTIGRADE OR KELVIN)
 L61 19025 SEA FILE=HCAPLUS ABB=ON PLU=ON BET OR B(W)E(W)T
 L62 131419 SEA FILE=HCAPLUS ABB=ON PLU=ON SURFACE(A)AREA
 L63 8292 SEA FILE=HCAPLUS ABB=ON PLU=ON L61(2A)L62
 L64 4605 SEA FILE=HCAPLUS ABB=ON PLU=ON M(W)G
 L67 2 SEA FILE=HCAPLUS ABB=ON PLU=ON (L35 OR L38 OR L48)
 AND ((L61 OR L62 OR L63 OR L64))
 L72 10 SEA FILE=HCAPLUS ABB=ON PLU=ON (L35 OR L38 OR L48)
 AND (RATIO OR PERCENT? OR PER(W)CENT? OR PROPORTION?)
 L73 1 SEA FILE=HCAPLUS ABB=ON PLU=ON (L35 OR L38 OR L48)
 AND MOLAR?
 L80 12 SEA FILE=HCAPLUS ABB=ON PLU=ON (L35 OR L38 OR L48)
 AND (?PAPER? OR CELLULOS?)
 L81 QUE ABB=ON PLU=ON IR OR INFRARED? OR INFRA(W)RED
 L82 2 SEA FILE=HCAPLUS ABB=ON PLU=ON (L35 OR L38 OR L48)
 AND L81
 L84 18 SEA FILE=HCAPLUS ABB=ON PLU=ON (L35 OR L38 OR L48)
 AND (SOL OR GEL)
 L85 16 SEA FILE=HCAPLUS ABB=ON PLU=ON L84 AND L24
 L86 31 SEA FILE=HCAPLUS ABB=ON PLU=ON L34 OR L44 OR (L46 OR
 L47) OR L49 OR L55 OR L58 OR L67 OR (L72 OR L73) OR
 L80 OR L82 OR L84 OR L85
 L87 19 SEA FILE=HCAPLUS ABB=ON PLU=ON L86 AND L21 AND L32
 AND (L22 OR SOL OR GEL?)
 L88 185795 SEA FILE=HCAPLUS ABB=ON PLU=ON L24(3A)(GEL OR SOL)
 L89 3 SEA FILE=HCAPLUS ABB=ON PLU=ON L87 AND L88
 L90 3 SEA FILE=HCAPLUS ABB=ON PLU=ON L86 AND L88
 L91 257276 SEA FILE=HCAPLUS ABB=ON PLU=ON PAPER?/SC,SX
 L92 2 SEA FILE=HCAPLUS ABB=ON PLU=ON L86 AND L91
 L93 101229 SEA FILE=HCAPLUS ABB=ON PLU=ON L21(2A)GEL?
 L94 9 SEA FILE=HCAPLUS ABB=ON PLU=ON (L23 OR L93) AND L86
 L95 12 SEA FILE=HCAPLUS ABB=ON PLU=ON (L89 OR L90) OR L92
 OR L94
 L97 8 SEA FILE=HCAPLUS ABB=ON PLU=ON L87 NOT L95
 L98 4 SEA FILE=HCAPLUS ABB=ON PLU=ON L97 AND (HAIR? OR
 METAL? OR RNA)
 L99 4 SEA FILE=HCAPLUS ABB=ON PLU=ON L97 NOT L98
 L100 16 SEA FILE=HCAPLUS ABB=ON PLU=ON L95 OR L99

=> d l100 1-16 ibib abs hitstr hitind

L100 ANSWER 1 OF 16 HCAPLUS COPYRIGHT 2006 ACS on STN
 ACCESSION NUMBER: 2005:106953 HCAPLUS
 DOCUMENT NUMBER: 142:409716
 TITLE: Method for isolating IgY antibody from bird
 egg of Order anseriformes and its
 product
 INVENTOR(S): Qiu, Yineng
 PATENT ASSIGNEE(S): Gude Biological Science and Technology Co.,
 Ltd., Taiwan
 SOURCE: Faming Zhuanli Shenqing Gongkai Shuomingshu,
 29 pp.

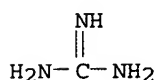
DOCUMENT TYPE: CODEN: CNXXEV
 LANGUAGE: Patent
 FAMILY ACC. NUM. COUNT: 1 Chinese
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
----- CN 1463985	----	----- A	----- 20031231	----- CN 2002-123237
				2002 0612
PRIORITY APPLN. INFO.:			CN 2002-123237	2002 0612

AB The method comprises adsorbing the yolk of Order anseriformes bird (such as duck or goose) with adsorbent, desorbing with 3-6 M guanidinium chloride buffer or 1-3 M NaSCN buffer, and purifying via two-stage salting out and/or affinity chromatog. The adsorbent is silicate (clay, talc, CaSiO₃, etc), silicide (SiO₂, amorphous Si, silica gel, silicate, diatomite, or fuller's clay), carbonate (CaCO₃ or BaCO₃), sulfate (CaSO₄), phosphate (Ca₃(PO₄)₂), C, cellulose, synthetic fiber, porous ceramic, or metal oxide (Al₂O₃ or TiO₂). The isolated IgY antibody may be used to prepare the medical composition and immunoassay test kit.

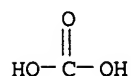
IT 50-01-1, Guanidinium chloride 471-34-1, Calcium carbonate, biological studies 513-77-9, Barium carbonate 7631-86-9, Silica, biological studies
 RL: ARG (Analytical reagent use); BSU (Biological study, unclassified); ANST (Analytical study); BIOL (Biological study);
 USES (Uses)
 (method for isolating IgY antibody from bird egg of Order anseriformes and its product)

RN 50-01-1 HCAPLUS
 CN Guanidine, monohydrochloride (8CI, 9CI) (CA INDEX NAME)



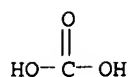
● HCl

RN 471-34-1 HCAPLUS
 CN Carbonic acid calcium salt (1:1) (8CI, 9CI) (CA INDEX NAME)



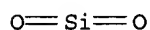
● Ca

RN 513-77-9 HCAPLUS
 CN Carbonic acid, barium salt (1:1) (8CI, 9CI) (CA INDEX NAME)



● Ba

RN 7631-86-9 HCAPLUS
CN Silica (6CI, 7CI, 8CI, 9CI) (CA INDEX NAME)



IC ICM C07K016-02
ICS A61K039-395; G01N033-563; G01N033-96
CC 15-3 (Immunochemistry)
Section cross-reference(s): 9
IT Antibodies and Immunoglobulins
RL: BPN (Biosynthetic preparation); PRP (Properties); PUR
(Purification or recovery); THU (Therapeutic use); BIOL
(Biological study); PREP (Preparation); USES (Uses)
(IgY; method for isolating IgY antibody from bird egg of Order
anseriformes and its **product**)
IT Anas domesticus
Anseriformes
Egg
Egg yolk
Goose
(method for isolating IgY antibody from bird egg of Order
anseriformes and its **product**)
IT 50-01-1, Guanidinium chloride 471-34-1, Calcium
carbonate, biological studies 513-77-9, Barium carbonate
540-72-7, Sodium isothiocyanate 1344-28-1, Alumina, biological
studies 1344-95-2, Calcium silicate 7440-21-3, Silicon,
biological studies 7631-86-9, Silica,
biological studies 7778-18-9, Calcium sulfate 10103-46-5,
Calcium phosphate 13463-67-7, Titania, biological studies
RL: ARG (Analytical reagent use); BSU (Biological study,
unclassified); ANST (Analytical study); BIOL (Biological study);
USES (Uses)
(method for isolating IgY antibody from bird egg of Order
anseriformes and its **product**)

L100 ANSWER 2 OF 16 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2004:1035806 HCAPLUS
DOCUMENT NUMBER: 142:39522
TITLE: Biodegradable materials and their use such as
in packaging, consumer **products**,
agriculture, cosmetics, food or
pharmaceuticals
INVENTOR(S): Takimoto, Hiroshi
PATENT ASSIGNEE(S): Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 39 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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JP 2004339496 A2 20041202 JP 2004-122660

2004
0419

PRIORITY APPLN. INFO.:

JP 2003-115307

A

2003
0421

AB The materials contain starch or its derivs., 60-300% (based on starch) urea or its derivs. and 10-150% (based on starch) polyhydric alcs. as plasticizers and other customary additives and active agents such as deodorants, medicinal compds., cosmetic substances, agricultural agents, etc. for specific or imaginal uses. Thus, homogenizing water 400 with acetylated tapioca starch 100, urea 200, and glycerin 40 parts gave a viscous mixture which was cast on an oriented polypropylene film to a thickness 3 mm and dried at 100° for 10 min to give a film having HCHO absorption and humidity absorption and release properties.

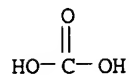
IT 471-34-1, Calcium carbonate, uses

RL: MOA (Modifier or additive use); USES (Uses)

(barrier coating containing; **manufacture** of biodegradable plastics from starch compds. for use in packaging of consumer **products**, agriculture, cosmetics, food or pharmaceuticals)

RN 471-34-1 HCAPLUS

CN Carbonic acid calcium salt (1:1) (8CI, 9CI) (CA INDEX NAME)



● Ca

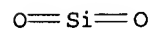
IT 7631-86-9, Snowtex XS, uses

RL: MOA (Modifier or additive use); USES (Uses)

(colloidal; **manufacture** of biodegradable plastics from starch compds. for use in packaging of consumer **products**, agriculture, cosmetics, food or pharmaceuticals)

RN 7631-86-9 HCAPLUS

CN Silica (6CI, 7CI, 8CI, 9CI) (CA INDEX NAME)



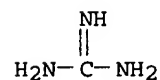
IT 50-01-1, Guanidine hydrochloride

RL: MOA (Modifier or additive use); USES (Uses)

(**manufacture** of biodegradable plastics from starch compds. for use in packaging of consumer **products**, agriculture, cosmetics, food or pharmaceuticals)

RN 50-01-1 HCAPLUS

CN Guanidine, monohydrochloride (8CI, 9CI) (CA INDEX NAME)



● HCl

- IC ICM C08L003-00
- ICS A01G007-00; A01N003-00; A01N025-10; A01N025-34; A01N037-18;
A01N043-70; A01N057-20; A01N057-28; A61K007-00; A61K007-13;
A61K007-42; A61K009-06; A61K009-70; A61K047-04; A61K047-10;
A61K047-16; A61K047-22; A61K047-36; A61L015-64
- CC 38-3 (Plastics Fabrication and Uses)
Section cross-reference(s): 17, 19, 62, 63
- IT Construction materials
(corrugated boards, barrier coating for; **manufacture** of
biodegradable plastics from starch compds. for use in packaging
of consumer **products**, agriculture, cosmetics, food or
pharmaceuticals)
- IT Textiles
(cotton, strips for reinforcement; **manufacture** of
biodegradable plastics from starch compds. for use in packaging
of consumer **products**, agriculture, cosmetics, food or
pharmaceuticals)
- IT Cosmetics
(creams; **manufacture** of biodegradable plastics from starch
compds. for use in packaging of consumer **products**,
agriculture, cosmetics, food or pharmaceuticals)
- IT Medical goods
(dressings, **gels**; **manufacture** of biodegradable
plastics from starch compds. for use in packaging of consumer
products, agriculture, cosmetics, food or
pharmaceuticals)
- IT Reinforced plastics
RL: TEM (Technical or engineered material use); USES (Uses)
(fiber-reinforced; **manufacture** of biodegradable plastics
from starch compds. for use in packaging of consumer
products, agriculture, cosmetics, food or
pharmaceuticals)
- IT Sericins
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(**gels**; **manufacture** of biodegradable plastics
from starch compds. for use in packaging of consumer
products, agriculture, cosmetics, food or
pharmaceuticals)
- IT Tannins
RL: COS (Cosmetic use); BIOL (Biological study); USES (Uses)
(hair dyeing composition; **manufacture** of biodegradable plastics
from starch compds. for use in packaging of consumer
products, agriculture, cosmetics, food or
pharmaceuticals)
- IT Turf
(lawn; **manufacture** of biodegradable plastics from starch
compds. for use in packaging of consumer **products**,
agriculture, cosmetics, food or pharmaceuticals)
- IT Adhesives
Agriculture and Agricultural chemistry
Antibacterial agents
Biodegradable materials
Coating materials
Cosmetics
Deodorants
Drugs
Food
Food packaging
Herbicides
Insect repellents
Packaging materials
Plastic films
Rodenticides
Sawdust
Sunscreens

- Wool
Wound healing
(**manufacture** of biodegradable plastics from starch compds.
for use in packaging of consumer **products**,
agriculture, cosmetics, food or pharmaceuticals)
- IT Diatomite
RL: AGR (Agricultural use); BIOL (Biological study); USES (Uses)
(**manufacture** of biodegradable plastics from starch compds.
for use in packaging of consumer **products**,
agriculture, cosmetics, food or pharmaceuticals)
- IT Glass fibers, uses
RL: MOA (Modifier or additive use); USES (Uses)
(**manufacture** of biodegradable plastics from starch compds.
for use in packaging of consumer **products**,
agriculture, cosmetics, food or pharmaceuticals)
- IT Plasticizers
(polyhydric alcs.; **manufacture** of biodegradable plastics
from starch compds. for use in packaging of consumer
products, agriculture, cosmetics, food or
pharmaceuticals)
- IT Alcohols, uses
RL: MOA (Modifier or additive use); USES (Uses)
(polyhydric, plasticizers; **manufacture** of biodegradable
plastics from starch compds. for use in packaging of consumer
products, agriculture, cosmetics, food or
pharmaceuticals)
- IT Natural fibers
RL: MOA (Modifier or additive use); USES (Uses)
(reinforcement; **manufacture** of biodegradable plastics from
starch compds. for use in packaging of consumer
products, agriculture, cosmetics, food or
pharmaceuticals)
- IT Tocopherols
RL: COS (Cosmetic use); BIOL (Biological study); USES (Uses)
(skin creams; **manufacture** of biodegradable plastics from
starch compds. for use in packaging of consumer
products, agriculture, cosmetics, food or
pharmaceuticals)
- IT Acne
(treatment; **manufacture** of biodegradable plastics from
starch compds. for use in packaging of consumer
products, agriculture, cosmetics, food or
pharmaceuticals)
- IT Paper
(**wallpaper**; **manufacture** of biodegradable
plastics from starch compds. for use in packaging of consumer
products, agriculture, cosmetics, food or
pharmaceuticals)
- IT 9002-89-5
RL: POF (Polymer in formulation); TEM (Technical or engineered
material use); USES (Uses)
(Gohsenol NH 20, Gohsenol NH 26, Gohsenol GH 17R, for deodorizing
film; **manufacture** of biodegradable plastics from starch
compds. for use in packaging of consumer **products**,
agriculture, cosmetics, food or pharmaceuticals)
- IT 9087-61-0, Okuteie
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(Okuteie; **manufacture** of biodegradable plastics from
starch compds. for use in packaging of consumer
products, agriculture, cosmetics, food or
pharmaceuticals)
- IT 115515-88-3, Decaglycerol stearate
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(Ryoto Polyglycerol Ester SWA 20D; **manufacture** of
biodegradable plastics from starch compds. for use in packaging
of consumer **products**, agriculture, cosmetics, food or

- pharmaceuticals)
- IT 471-34-1, Calcium carbonate, uses 20190-03-8, Cyclohexylammonium cyclohexylcarbamate 112760-18-6, Kyowaad 2000 149659-44-9, Lipolan PB 800
RL: MOA (Modifier or additive use); USES (Uses)
(barrier coating containing; **manufacture** of biodegradable plastics from starch compds. for use in packaging of consumer **products**, agriculture, cosmetics, food or pharmaceuticals)
- IT 55353-13-4, Diaion HP 20
RL: TEM (Technical or engineered material use); USES (Uses)
(barrier coating for corrugated boards; **manufacture** of biodegradable plastics from starch compds. for use in packaging of consumer **products**, agriculture, cosmetics, food or pharmaceuticals)
- IT 25549-84-2, Jurymer AC-10S
RL: POF (Polymer in formulation); PRP (Properties); TEM (Technical or engineered material use); USES (Uses)
(barrier coating; **manufacture** of biodegradable plastics from starch compds. for use in packaging of consumer **products**, agriculture, cosmetics, food or pharmaceuticals)
- IT 7631-86-9, Snowtex XS, uses
RL: MOA (Modifier or additive use); USES (Uses)
(colloidal; **manufacture** of biodegradable plastics from starch compds. for use in packaging of consumer **products**, agriculture, cosmetics, food or pharmaceuticals)
- IT 50-21-5, Lactic acid, uses 124-30-1, Stearylamine
RL: MOA (Modifier or additive use); NUU (Other use, unclassified); USES (Uses)
(deodorizing films containing; **manufacture** of biodegradable plastics from starch compds. for use in packaging of consumer **products**, agriculture, cosmetics, food or pharmaceuticals)
- IT 50-99-7, Glucose, uses 56-87-1, Lysine, uses 60-33-3, Linolic acid, uses 77-92-9, Citric acid, uses 90-20-0, H Acid 514-10-3, Abietic acid 6915-15-7, Malic acid 7553-56-2, Iodine, uses 7681-11-0, Potassium iodide, uses 7681-52-9, Sodium hypochlorite 10043-35-3, Boric acid, uses 12304-65-3, Hydrotalcite 149316-65-4, Lucentite SWN 804517-98-4 804517-99-5
RL: NUU (Other use, unclassified); USES (Uses)
(deodorizing films containing; **manufacture** of biodegradable plastics from starch compds. for use in packaging of consumer **products**, agriculture, cosmetics, food or pharmaceuticals)
- IT 9080-79-9, Polity PS 30551-89-4, PAA 10C
RL: POF (Polymer in formulation); PRP (Properties); TEM (Technical or engineered material use); USES (Uses)
(deodorizing films containing; **manufacture** of biodegradable plastics from starch compds. for use in packaging of consumer **products**, agriculture, cosmetics, food or pharmaceuticals)
- IT 112-80-1, Oleic acid, uses
RL: NUU (Other use, unclassified); USES (Uses)
(deodorizing films; **manufacture** of biodegradable plastics from starch compds. for use in packaging of consumer **products**, agriculture, cosmetics, food or pharmaceuticals)
- IT 9003-01-4, Jurymer AC 10P 9011-13-6, SMA 2000 30174-70-0, Epocros WS 500 39423-51-3, Jeffamine T 403 68890-81-3, SMA 2625 121630-71-5D, Denacol EX 521, crosslinked with starch compound and urea
RL: POF (Polymer in formulation); PRP (Properties); TEM (Technical or engineered material use); USES (Uses)

- (deodorizing films; **manufacture** of biodegradable plastics from starch compds. for use in packaging of consumer **products**, agriculture, cosmetics, food or pharmaceuticals)
- IT 57-13-6D, Urea, crosslinked with polyglycerol glycidyl ether and acetyl starch 9045-28-7D, Acetyl starch, crosslinked with polyglycerol glycidyl ether and urea
 RL: POF (Polymer in formulation); PRP (Properties); TEM (Technical or engineered material use); USES (Uses)
 (films; **manufacture** of biodegradable plastics from starch compds. for use in packaging of consumer **products**, agriculture, cosmetics, food or pharmaceuticals)
- IT 108-78-1, Melamine, uses 1309-42-8, Magnesium **hydroxide** 7664-38-2, Phosphoric acid, uses 21645-51-2, Aluminum **hydroxide**, uses
 RL: MOA (Modifier or additive use); USES (Uses)
 (fireproofing agent; **manufacture** of biodegradable plastics from starch compds. for use in packaging of consumer **products**, agriculture, cosmetics, food or pharmaceuticals)
- IT 499-44-5, Hinokitiol
 RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
 (gel composition; **manufacture** of biodegradable plastics from starch compds. for use in packaging of consumer **products**, agriculture, cosmetics, food or pharmaceuticals)
- IT 53-86-1, Indomethacine 71-00-1, Histidine, biological studies 9004-61-9, Hyaluronic acid 9007-28-7, Chondroitin sulfate 37318-31-3, Ryoto Sugar Ester S 1570
 RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
 (gels; **manufacture** of biodegradable plastics from starch compds. for use in packaging of consumer **products**, agriculture, cosmetics, food or pharmaceuticals)
- IT 86-87-3, Naphthaleneacetic acid 91-20-3, Naphthalene, biological studies 16068-46-5, Potassium phosphate 21725-46-2, Cyanazine 30560-19-1, Acephate 804500-96-7, Gabusen 901
 RL: AGR (Agricultural use); BIOL (Biological study); USES (Uses)
 (**manufacture** of biodegradable plastics from starch compds. for use in packaging of consumer **products**, agriculture, cosmetics, food or pharmaceuticals)
- IT 110413-48-4P, Starch-urea copolymer 801265-59-8P, Acetyl starch-urea copolymer 801265-62-3P, Acetyl starch-starch-urea copolymer
 RL: COS (Cosmetic use); FFD (Food or feed use); IMF (Industrial manufacture); POF (Polymer in formulation); TEM (Technical or engineered material use); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
 (**manufacture** of biodegradable plastics from starch compds. for use in packaging of consumer **products**, agriculture, cosmetics, food or pharmaceuticals)
- IT 50-01-1, Guanidine hydrochloride 143-18-0, Potassium oleate 334-48-5, Decanoic acid 1327-41-9, Aluminum hydroxychloride 7681-55-2, Sodium iodate 98036-77-2, Kyowaad 1000 101901-86-4
 RL: MOA (Modifier or additive use); USES (Uses)
 (**manufacture** of biodegradable plastics from starch compds. for use in packaging of consumer **products**, agriculture, cosmetics, food or pharmaceuticals)
- IT 50-81-7, Ascorbic acid, biological studies 52-90-4, Cystein, biological studies 69-72-7, Salicylic acid, biological studies 89-83-8, Thymol 123-31-9, Hydroquinone, biological studies 18472-51-0, Chlorhexidine gluconate 21799-87-1, Potassium Hydroquinonesulfonate 22832-87-7, Miconazole nitrate 74504-64-6, Unigly GL 106 130293-42-4, Unigly GS 106
 RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)

- (**manufacture** of biodegradable plastics from starch compds. for use in packaging of consumer **products**, agriculture, cosmetics, food or pharmaceuticals)
- IT 138-86-3, Limonene
RL: NUU (Other use, unclassified); USES (Uses)
(perfume; **manufacture** of biodegradable plastics from starch compds. for use in packaging of consumer **products**, agriculture, cosmetics, food or pharmaceuticals)
- IT 27215-38-9, Glyceryl monolaurate
RL: MOA (Modifier or additive use); USES (Uses)
(plasticizer; **manufacture** of biodegradable plastics from starch compds. for use in packaging of consumer **products**, agriculture, cosmetics, food or pharmaceuticals)
- IT 50-70-4, Sorbitol, uses 56-81-5, Glycerine, uses 57-55-6, Propylene glycol, uses 107-21-1, Ethylene glycol, uses
RL: MOA (Modifier or additive use); USES (Uses)
(plasticizers; **manufacture** of biodegradable plastics from starch compds. for use in packaging of consumer **products**, agriculture, cosmetics, food or pharmaceuticals)
- IT 120-51-4, Benzyl benzoate 1476-23-9, Allyl isocyanate
RL: NUU (Other use, unclassified); USES (Uses)
(preservative; **manufacture** of biodegradable plastics from starch compds. for use in packaging of consumer **products**, agriculture, cosmetics, food or pharmaceuticals)
- IT 54-11-5, Nicotine 155925-42-1, Sepabeads SP 850
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(slow-release patch containing; **manufacture** of biodegradable plastics from starch compds. for use in packaging of consumer **products**, agriculture, cosmetics, food or pharmaceuticals)
- IT 804513-85-7, Sanmelin Y-AP
RL: COS (Cosmetic use); BIOL (Biological study); USES (Uses)
(sunscreens containing; **manufacture** of biodegradable plastics from starch compds. for use in packaging of consumer **products**, agriculture, cosmetics, food or pharmaceuticals)

L100 ANSWER 3 OF 16 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2004:57275 HCAPLUS
DOCUMENT NUMBER: 140:113116
TITLE: Silica sols containing
guanidine carbonate
INVENTOR(S): Puppe, Lothar; Pantke, Dietrich
PATENT ASSIGNEE(S): H.C. Starck G.m.b.H., Germany
SOURCE: Ger. Offen., 9 pp.
CODEN: GWXXBX
DOCUMENT TYPE: Patent
LANGUAGE: German
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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DE 10230982	A1	20040122	DE 2002-10230982	2002 0710
CA 2492094	AA	20040122	CA 2003-2492094	2003 0707
WO 2004007367	A1	20040122	WO 2003-EP7235	2003

0707

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW

RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG

AU 2003250894 A1 20040202 AU 2003-250894

2003
0707

BR 2003005433 A 20040928 BR 2003-5433

2003
0707

EP 1521720 A1 20050413 EP 2003-763721

2003
0707

R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK

CN 1681738 A 20051012 CN 2003-821522

2003
0707

JP 2005532249 T2 20051027 JP 2004-520498

2003
0707

NO 2005000500 A 20050128 NO 2005-500

2005
0128

US 2006013754 A1 20060119 US 2005-520574

2005
0715

PRIORITY APPLN. INFO.:

DE 2002-10230982 A

2002
0710

WO 2003-EP7235

W

2003
0707

AB SiO₂ sols with good stability in the absence of Al ions and useful in paper retention (no data) are prepared by adding guanidine carbonate (I) to fresh sols. Adding a solution of I 47.7, 45% NaOH 9.3, and H₂O 945 g to 3200 mL fresh 5.6% SiO₂ sol in 3 stages gave a fine, partially structured sol with d. 1.065, pH 9.7, and sp. surface 480 m²/g.

IT 100224-74-6, Guanidine carbonate

RL: MOA (Modifier or additive use); USES (Uses)

(silica sols containing guanidine carbonate)

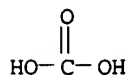
RN 100224-74-6 HCAPLUS

CN Carbonic acid, compd. with guanidine (9CI) (CA INDEX NAME)

CM 1

CRN 463-79-6

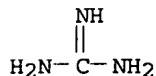
CMF C H₂ O₃



CM 2

CRN 113-00-8

CMF C H5 N3

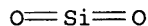


IT 7631-86-9, Silica, uses

RL: TEM (Technical or engineered material use); USES (Uses)
 (silica sols containing guanidine
 carbonate)

RN 7631-86-9 HCAPLUS

CN Silica (6CI, 7CI, 8CI, 9CI) (CA INDEX NAME)



IC ICM C01B033-146

ICS D21H021-10

CC 43-7 (Cellulose, Lignin, Paper, and Other Wood Products)

ST guanidine carbonate silica
 sol; paper retention silica
 sol

IT Paper

(silica sols containing guanidine
 carbonate for use in paper retention)

IT 100224-74-6, Guanidine carbonate

RL: MOA (Modifier or additive use); USES (Uses)
 (silica sols containing guanidine
 carbonate)

IT 7631-86-9, Silica, uses

RL: TEM (Technical or engineered material use); USES (Uses)
 (silica sols containing guanidine
 carbonate)

L100 ANSWER 4 OF 16 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2003:985785 HCAPLUS

DOCUMENT NUMBER: 140:26924

TITLE: Process for selectively isolating IgY
 antibodies from egg yolk of an anseriform bird
 and IgY antibodies obtained thereby

INVENTOR(S): Chiou, Y-Neng

PATENT ASSIGNEE(S): Good Biotech Corporation, Taiwan

SOURCE: Eur. Pat. Appl., 17 pp.

CODEN: EPXXDW

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 1371665	A1	20031217	EP 2002-254064	

2002
0611

R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE,
MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR
CA 2389897 AA 20031207 CA 2002-2389897

2002
0607

BR 2002003246 A 20040518 BR 2002-3246

2002
0612

NZ 519506 A 20040528 NZ 2002-519506

2002
0612

PRIORITY APPLN. INFO.: EP 2002-254064 A

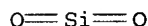
2002
0611

AB The present invention mainly relates to a process for isolation and purification of yolk antibodies from egg yolk of an anseriform bird by an adsorption chromatog. procedure using a water insol. non-charged absorbent to accomplish a desired separation of yolk antibodies, and by a salting-out procedure that differentially ppt. the IgY antibodies. The present invention also relates to the yolk antibodies produced thereby and various uses of such yolk antibodies.

IT 7631-86-9, Fumed silica, analysis
RL: ARU (Analytical role, unclassified); ANST (Analytical study)
(amorphous and colloidal; process for selectively isolating IgY antibodies from egg yolk of an anseriform bird)

RN 7631-86-9 HCAPLUS

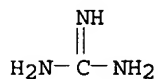
CN Silica (6CI, 7CI, 8CI, 9CI) (CA INDEX NAME)



IT 50-01-1, Guanidine hydrochloride 471-34-1,
Calcium carbonate, analysis 513-77-9, Barium carbonate
RL: ARU (Analytical role, unclassified); ANST (Analytical study)
(process for selectively isolating IgY antibodies from egg yolk of an anseriform bird)

RN 50-01-1 HCAPLUS

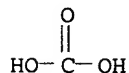
CN Guanidine, monohydrochloride (8CI, 9CI) (CA INDEX NAME)



● HCl

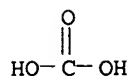
RN 471-34-1 HCAPLUS

CN Carbonic acid calcium salt (1:1) (8CI, 9CI) (CA INDEX NAME)



● Ca

RN 513-77-9 HCAPLUS
 CN Carbonic acid, barium salt (1:1) (8CI, 9CI) (CA INDEX NAME)



● Ba

IC ICM C07K016-02
 CC 15-3 (Immunochemistry)
 IT Clays, analysis
 Diatomite
 Fuller's earth
 Kaolin, analysis
 Oxides (inorganic), analysis
 Silica gel, analysis
 Silicates, analysis
 Synthetic fibers
 RL: ARU (Analytical role, unclassified); ANST (Analytical study)
 (process for selectively isolating IgY antibodies from egg yolk
 of an anseriform bird)
 IT 7631-86-9, Fumed silica, analysis
 RL: ARU (Analytical role, unclassified); ANST (Analytical study)
 (amorphous and colloidal; process for selectively
 isolating IgY antibodies from egg yolk of an anseriform bird)
 IT 50-01-1, Guanidine hydrochloride 471-34-1,
 Calcium carbonate, analysis 513-77-9, Barium carbonate
 540-72-7, Sodium thiocyanate 1344-28-1, Aluminum oxide, analysis
 1344-95-2, Calcium silicate 3812-32-6, Carbonate, analysis
 7783-20-2, Ammonium sulfate, analysis 9004-34-6,
 Cellulose, analysis 10103-46-5, Calcium phosphate
 13463-67-7, Titanium oxide, analysis 14265-44-2, Phosphate,
 analysis 14807-96-6, Talc, analysis 14808-79-8, Sulfate,
 analysis
 RL: ARU (Analytical role, unclassified); ANST (Analytical study)
 (process for selectively isolating IgY antibodies from egg yolk
 of an anseriform bird)
 REFERENCE COUNT: 5 THERE ARE 5 CITED REFERENCES AVAILABLE
 FOR THIS RECORD. ALL CITATIONS AVAILABLE
 IN THE RE FORMAT

L100 ANSWER 5 OF 16 HCAPLUS COPYRIGHT 2006 ACS on STN
 ACCESSION NUMBER: 2001:157537 HCAPLUS
 DOCUMENT NUMBER: 134:197161
 TITLE: Thermoplastic fluidizable aqueous
 macromolecular inorganic materials capable of
 forming films and used as precursors of
 inorganic compound molds, and their
 preparation
 INVENTOR(S): Kokuta, Hiroshi; Kokuta, Katsuhiko; Uchida,
 Hideaki; Kokuta, Kenji; Kokuta, Naoto
 PATENT ASSIGNEE(S): Japan
 SOURCE: Jpn. Kokai Tokkyo Koho, 11 pp.
 CODEN: JKXXAF
 DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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 JP 2001058815 A2 20010306 JP 1999-272897

1999
 0822

PRIORITY APPLN. INFO.:

JP 1999-272897

1999
 0822

AB Substances are allowed to react at 80-200° to give the title macromol. inorg. materials which have ≥ 2 Si/Na ratio, $\geq 1,000$ weight average mol. ratio and containing ≤ 80 weight parts of unfree water. Preferably, the inorg. materials contain siloxanes and silanol salts, and are amorphous. The inorg. materials (optionally mixed with alcs. to give alkoxides) are heated and dewatered to give hardened molds. The inorg. materials are inserted into woods to obtain fire-proofing property. The inorg. materials showing thermoplastic properties can be substitutes for synthetic resins and disposed without environmental pollution. Thus, a fluid having ≤ 1.8 Si/Na mol. ratio was prepared by heating an exothermic mixture of Si, water, borax, NaF, and NaOH. The fluid was applied on a glass and dried, and the resulting colloidal film was fired at .apprx.900. degree. to give a frit-like inorg. film. containing SiO₂ 60.45, B₂O₃ 22.9, Na₂O 15.7, and NaF 0.9 weight%.

IT 1310-58-3, Potassium hydroxide, reactions 1310-73-2, Sodium hydroxide, reactions
 RL: RCT (Reactant); RACT (Reactant or reagent)
 (in preparation of thermoplastic fluidizable fireproofing aqueous macromol. inorg. materials used by themselves or by heating for hardening)

RN 1310-58-3 HCAPLUS
 CN Potassium hydroxide (K(OH)) (9CI) (CA INDEX NAME)

K-OH

RN 1310-73-2 HCAPLUS
 CN Sodium hydroxide (Na(OH)) (9CI) (CA INDEX NAME)

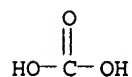
Na-OH

IT 100224-74-6, Guanidine carbonate
 RL: MOA (Modifier or additive use); USES (Uses)
 (thickening agent; in preparation of thermoplastic fluidizable fireproofing aqueous macromol. inorg. materials used by themselves or by heating for hardening)

RN 100224-74-6 HCAPLUS
 CN Carbonic acid, compd. with guanidine (9CI) (CA INDEX NAME)

CM 1

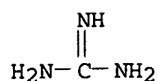
CRN 463-79-6
 CMF C H2 O3



CM 2

CRN 113-00-8

CMF C H5 N3



- IC ICM C01B033-32
ICS B01J019-00
- CC 58-6 (Cement, Concrete, and Related Building Materials)
Section cross-reference(s): 43, 57
- IT Cellulose pulp
Cotton
Manila hemp (Musa textilis)
Wood
Wool
(composites with fireproofing inorg. fluids; preparation of thermoplastic fluidizable fireproofing aqueous macromol. inorg. materials used by themselves or by heating for hardening)
- IT Construction materials
(fireproofing; preparation of thermoplastic fluidizable fireproofing aqueous macromol. inorg. materials used by themselves or by heating for hardening to give frits)
- IT Fire-resistant materials
(preparation of thermoplastic fluidizable fireproofing aqueous macromol. inorg. materials used by themselves or by heating for hardening)
- IT Frits
(preparation of thermoplastic fluidizable fireproofing aqueous macromol. inorg. materials used by themselves or by heating for hardening to give frits)
- IT Alcohols, uses
Polyoxyalkylenes, uses
RL: MOA (Modifier or additive use); USES (Uses)
(thickening agent; in preparation of thermoplastic fluidizable fireproofing aqueous macromol. inorg. materials used by themselves or by heating for hardening)
- IT Composites
(wood and fireproofing inorg. fluids; preparation of thermoplastic fluidizable fireproofing aqueous macromol. inorg. materials used by themselves or by heating for hardening)
- IT 1303-96-4, Borax 1310-58-3, Potassium hydroxide, reactions 1310-73-2, Sodium hydroxide, reactions 7440-21-3, Silicon, reactions 7681-49-4, Sodium fluoride, reactions 7732-18-5, Water, reactions
RL: RCT (Reactant); RACT (Reactant or reagent)
(in preparation of thermoplastic fluidizable fireproofing aqueous macromol. inorg. materials used by themselves or by heating for hardening)
- IT 67-56-1, Methyl alcohol, uses 111-46-6, Diethylene glycol, uses 25322-69-4, Polypropylene glycol 100224-74-6, Guanidine carbonate
RL: MOA (Modifier or additive use); USES (Uses)
(thickening agent; in preparation of thermoplastic fluidizable fireproofing aqueous macromol. inorg. materials used by themselves or by heating for hardening)
- IT 64-17-5, Ethyl alcohol, uses 67-63-0, Isopropyl alcohol, uses
RL: MOA (Modifier or additive use); USES (Uses)
(thinning agent; in preparation of thermoplastic fluidizable

fireproofing aqueous macromol. inorg. materials used by themselves
or by heating for hardening)

L100 ANSWER 6 OF 16 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2001:78054 HCAPLUS
DOCUMENT NUMBER: 134:133034
TITLE: Chemical-mechanical abrasive composition and
method
INVENTOR(S): Lee, Tsung-Ho; Lee, Kang-Hua; Yeh, Tsui-Ping
PATENT ASSIGNEE(S): Eternal Chemical Co., Ltd., Taiwan
SOURCE: Eur. Pat. Appl., 14 pp.
CODEN: EPXXDW
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 1072662	A1	20010131	EP 2000-306436	2000 0728
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO				
CN 1282775	A	20010207	CN 1999-111044	1999 0728
CN 1107097	B	20030430		
SG 97157	A1	20030718	SG 2000-3947	2000 0714
HK 1034992	A1	20031224	HK 2001-105251	2001 0727
PRIORITY APPLN. INFO.:			CN 1999-111044	A 1999 0728

OTHER SOURCE(S): MARPAT 134:133034

AB The invention provides a chemical-mech. abrasive composition for use in semiconductor processing, which comprises an aqueous medium, an abrasive, and an abrasion accelerator. The abrasion accelerator mainly functions to enhance the removal rate of the substances to be removed, and comprises a compound of the formula $R_1C(X)YR_2$, wherein X and Y are independently lone-pair electrons containing atoms or atomic groups; and R_1 and R_2 are independently H, alkyl, amino, aminoalkyl, or alkoxy; or acid addition salt thereof. The chemical-mech. abrasive composition of the invention may optionally comprise an acidic component and/or a salt thereof, so as to further enhance the abrasion rate. The invention further provides a method of using the above chemical-mech. abrasive composition for polishing the surface of a semiconductor wafer. An abrasive contained silica gel and methylglycinate HCl.

IT 2200-97-7, Aminoguanidine carbonate 100224-74-6, Guanidine carbonate
RL: TEM (Technical or engineered material use); USES (Uses)
(abrasion accelerator; chemical-mech. abrasive composition and method)

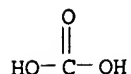
RN 2200-97-7 HCAPLUS

CN Carbonic acid, compd. with hydrazinecarboximidamide (9CI) (CA INDEX NAME)

CM 1

CRN 463-79-6

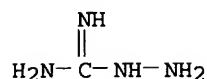
CMF C H2 O3



CM 2

CRN 79-17-4

CMF C H6 N4



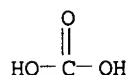
RN 100224-74-6 HCAPLUS

CN Carbonic acid, compd. with guanidine (9CI) (CA INDEX NAME)

CM 1

CRN 463-79-6

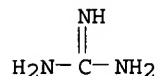
CMF C H2 O3



CM 2

CRN 113-00-8

CMF C H5 N3

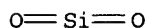


IT 7631-86-9, Fumed silica, uses

RL: TEM (Technical or engineered material use); USES (Uses)
 (colloidal, abrasive; chemical-mech. abrasive composition and method)

RN 7631-86-9 HCAPLUS

CN Silica (6CI, 7CI, 8CI, 9CI) (CA INDEX NAME)



IC ICM C09G001-02

CC 42-11 (Coatings, Inks, and Related Products)
 Section cross-reference(s): 76

IT Silica gel, uses

RL: TEM (Technical or engineered material use); USES (Uses)
 (abrasive; chemical-mech. abrasive composition and method)

IT 51-79-6, Ethyl carbamate 57-13-6, , Urea, uses 57-56-7,
 Semicarbazide 60-35-5, Acetamide, uses 75-12-7, Formamide,
 uses 79-17-4, Aminoguanidine 113-00-8, Guanidine 143-37-3,
 Acetamidine 459-73-4, Ethyl glycinate 463-52-5, Formamidine

563-41-7, Semicarbazide hydrochloride 598-41-4, Glycinamide
 598-55-0, Methyl carbamate 616-34-2, Methylglycinate 624-84-0,
Formyl hydrazide 1068-57-1, Acethydrazide 1668-10-6,
 Glycina-mide hydrochloride 2200-97-7, Aminoguanidine
 carbonate 4114-31-2, Ethyl carbazate 5680-79-5, Methyl
 glycinate hydrochloride 6294-89-9, Methyl carbazate
100224-74-6, Guanidine carbonate

RL: TEM (Technical or engineered material use); USES (Uses)
 (abrasion accelerator; chemical-mech. abrasive composition and method)

IT 7631-86-9, Fumed silica, uses

RL: TEM (Technical or engineered material use); USES (Uses)
 (colloidal, abrasive; chemical-mech. abrasive composition and
 method)

REFERENCE COUNT: 2 THERE ARE 2 CITED REFERENCES AVAILABLE
 FOR THIS RECORD. ALL CITATIONS AVAILABLE
 IN THE RE FORMAT

L100 ANSWER 7 OF 16 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 1997:743797 HCAPLUS

DOCUMENT NUMBER: 128:68542

TITLE: Heat development-type diazo second
 original drawing sheet

INVENTOR(S): Higeta, Shigeru

PATENT ASSIGNEE(S): Ricoh Co., Ltd., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 8 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

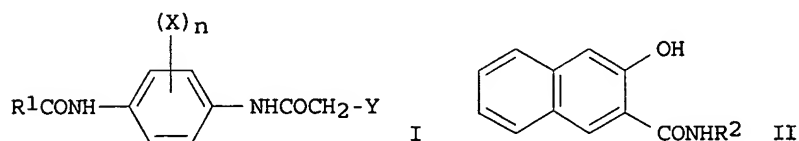
LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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JP 09297371	A2	19971118	JP 1996-134308	1996 0501
JP 3520888	B2	20040419		
PRIORITY APPLN. INFO.:			JP 1996-134308	1996 0501

OTHER SOURCE(S): MARPAT 128:68542
 GI



AB The title sheet comprises a light-sensitive layer containing a diazo compound and a coupler layer containing a coupler component and a copolymer of a carboxylic acid or dicarboxylic acid anhydride monomer **formed** on a transparent or translucent support and contains compds. represented by formula [I; R1 = (un)substituted aryl or alkyl; X = alkyl, alkoxy; Y = acyl, benzoyl, cyano; n = 0-2] and/or formula [II; R2 = alkyl, hydroxyalkyl, NH2, N-heterocyclylalkyl, (un)substituted aryl] as the coupler components. The coupler layer also contains a water-soluble guanidine derivative and the coupler layer and/or the light-sensitive layer contains a **heat**-melttable substance

having m.p. 60-150°. The copolymer resin is selected from styrene-acrylic acid copolymer or its mixture with isobutylene-maleic anhydride copolymer or styrene-maleic anhydride copolymer. This sheet is a thermal development-type copying sheet which is placed on top of a transparent or translucent original and exposed to light and the latent image formed is heat-developed. It is used to make a copy of an industrial blue print in order to prevent damage and stains to the original, and maintains quality of initial images and reliability of images which are equivalent to those obtained by dry or wet type method and is excellent in long-term storability and is free from fog after long-term storage. It also undergoes coloration at low temperature. Thus, a PET film mat-treated on one side was coated with a coupler suspension liquid containing 4-benzoylamino-2,5-diethoxycyanoacetanilide (yellow coloring coupler), styrene-ammonium acrylate copolymer, stearamide, silica powder, poly(vinyl alc.), guanidine carbonate, and water followed by drying and then coating a photosensitive layer containing 4-diazo-1-morpholino-2,5-dibutoxybenzene chloride-0.5 ZnCl₂, tartaric acid, caffeine, isopropanol, saponin, and water, and finally drying to give a thermal development-type diazo copying sheet.

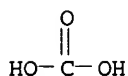
IT 100224-74-6, Guanidine carbonate
 RL: TEM (Technical or engineered material use); USES (Uses)
 (heat development-type diazo second original drawing
 sheet to make copies of original blue prints)

RN 100224-74-6 HCAPLUS
 CN Carbonic acid, compd. with guanidine (9CI) (CA INDEX NAME)

CM 1

CRN 463-79-6

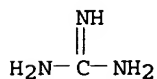
CMF C H2 O3



CM 2

CRN 113-00-8

CMF C H5 N3



IC ICM G03C001-58
 ICS B41M005-26; G03C001-52
 CC 74-7 (Radiation Chemistry, Photochemistry, and Photographic and
 Other Reprographic Processes)
 IT Diazo process
 Photothermographic copying
 (heat development-type diazo second original drawing
 sheet to make copies of original blue prints)
 IT 92-77-3, Naphthol AS 9011-13-6, Styrene-maleic anhydride
 copolymer 14726-58-0 25085-34-1, Styrene-acrylic acid
 copolymer 26426-80-2, Isobutylene-maleic anhydride copolymer
 89309-94-4 100224-74-6, Guanidine
 carbonate 200191-89-5 200191-90-8
 RL: TEM (Technical or engineered material use); USES (Uses)

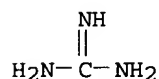
(heat development-type diazo second original drawing
sheet to make copies of original blue prints)

L100 ANSWER 8 OF 16 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 1993:196626 HCAPLUS
DOCUMENT NUMBER: 118:196626
TITLE: **Manufacture of dehydroxylated glass**
INVENTOR(S): Mathur, Akshay; Pye, Lenwood D.
PATENT ASSIGNEE(S): Alfred University, USA
SOURCE: U.S., 6 pp.
CODEN: USXXAM
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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US 5192351	A	19930309	US 1991-812130	1991 1217

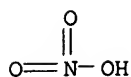
PRIORITY APPLN. INFO.: US 1991-812130
1991
1217

AB A substantially dehydroxylated glass is **formed** by
impregnating a dry porous **silica gel**
(optionally doped with Nd) with a N-containing organic compound in an organic
solvent for the compound The impregnated **gel** is then
sintered in a nonoxidizing atmospheric to **form** a substantially
dehydroxylated, fully densified **silica glass**. The
gel is typically **formed** by a sol-
gel process. The N-containing organic compound is selected from
guanidine hydrochloride, **guanidine carbonate**,
guanidine nitrate, and/or urea.
IT 50-01-1, Guanidine hydrochloride 506-93-4,
Guanidine nitrate 100224-74-6, **Guanidine**
carbonate
RL: USES (Uses)
(**silica gel** impregnated with, in
dehydroxylated **silica glass manufacture**)
RN 50-01-1 HCAPLUS
CN Guanidine, monohydrochloride (8CI, 9CI) (CA INDEX NAME)



● HCl

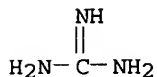
RN 506-93-4 HCAPLUS
CN Guanidine, mononitrate (8CI, 9CI) (CA INDEX NAME)
CM 1
CRN 7697-37-2
CMF H N O3



CM 2

CRN 113-00-8

CMF C H5 N3



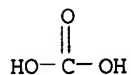
RN 100224-74-6 HCAPLUS

CN Carbonic acid, compd. with guanidine (9CI) (CA INDEX NAME)

CM 1

CRN 463-79-6

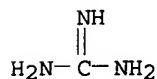
CMF C H2 O3



CM 2

CRN 113-00-8

CMF C H5 N3



IC ICM C03B037-016

INCL 065018100

CC 57-1 (Ceramics)

ST dehydroxylated glass sol gel process;
 guanidine compd dehydroxylated glass; urea silica
 gel dehydroxylated glass; neodymium oxide silica
 dehydroxylated glass

IT 60676-86-0P, Silica glass

RL: PREP (Preparation)

(dehydroxylated, manufacture of, by sol-
 gel process)

IT 50-01-1, Guanidine hydrochloride 57-13-6, Urea, uses

506-93-4, Guanidine nitrate 100224-74-6,

Guanidine carbonate

RL: USES (Uses)

(silica gel impregnated with, in
 dehydroxylated silica glass manufacture)

IT 1313-97-9, Neodymia

RL: USES (Uses)

(silica glass containing, manufacture of
 dehydroxylated)

L100 ANSWER 9 OF 16 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 1988:595915 HCAPLUS
DOCUMENT NUMBER: 109:195915
TITLE: Process for dewatering porous silica
glass
INVENTOR(S): Elmer, Thomas H.
PATENT ASSIGNEE(S): Corning Glass Works, USA
SOURCE: U.S., 5 pp.
CODEN: USXXAM
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
-----	----	-----	-----	
US 4772305	A	19880920	US 1986-880458	1986 0630
PRIORITY APPLN. INFO.:				US 1986-880458 1986 0630

AB Porous, 96%-SiO₂ glass is dewatered by (a) impregnating the glass with a water-soluble, N-containing organic compds. that is thermally decomposable to give reactive N species that chemical combine with the glass to impart N to the glass composition, (b) drying the impregnating glass to remove the water from the aqueous solution, and (c) heating the dried glass in a nonoxidizing atmospheric at a temperature below which pore closure is initiated to dissociate N from the organic compound, chemical combine the N with the glass whereby N replaces OH ions, and expel the OH ions from the glass. This method does not involve flowing NH₃-containing atms. and is quite effective in increasing the annealing point and in reducing the IR absorption, giving consistent properties throughout the thickness of the porous glass. Samples of porous, SiO₂-rich glass (preparation described) having composition SiO₂ 96, B₂O₃ 3, R₂O₃ + R₂O (mainly Al₂O₃ and ZrO₂) 0.4, and traces Na₂O, were soaked in aqueous solns. of urea (I), guanidine-HCl (II) and guanidine carbonate (III) for several h, and the impregnated samples were either dried in air or under mild heating, followed by heating to .apprx.900° to dissociate the N compds. and permit reaction with the glass. Next, the samples were heated to and held for 30 min at 1225. degree. to consolidate the glass into a nonporous body of the same shape (plates, tubes), and cooled. Samples having thickness 4, 1, and 1 mm, soaked in I, II and III, resp., had BOH values (relative height of absorption peak at wavelength 2.73 μm) 0.04, 0.00, and 0.05, vs. 0.29, 0.31, and 0.34 mm⁻¹, resp., for nonimpregnated samples.

IT 7631-86-9

RL: USES (Uses)
(glass, silica-rich, dewatering of porous, nitrogen compds. in, for low IR absorption)

RN 7631-86-9 HCAPLUS

CN Silica (6CI, 7CI, 8CI, 9CI) (CA INDEX NAME)

O=Si=O

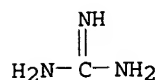
IT 50-01-1, Guanidine hydrochloride 100224-74-6

RL: USES (Uses)
(impregnation with, of porous silica-rich glass, for

dewatering and low IR absorption)

RN 50-01-1 HCAPLUS

CN Guanidine, monohydrochloride (8CI, 9CI) (CA INDEX NAME)



● HCl

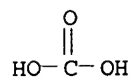
RN 100224-74-6 HCAPLUS

CN Carbonic acid, compd. with guanidine (9CI) (CA INDEX NAME)

CM 1

CRN 463-79-6

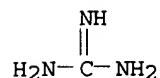
CMF C H2 O3



CM 2

CRN 113-00-8

CMF C H5 N3



IC ICM C03C023-00

INCL 065030100

CC 57-1 (Ceramics)

ST silica glass porous dewatering; nitrogen compd
 silica glass dewatering; urea silica glass
 dewatering; guanidine hydrochloride silica glass
 dewatering

IT Amines, uses and miscellaneous

RL: USES (Uses)

(impregnation with, of porous silica-rich glass, for
 dewatering and low IR absorption)

IT Glass, oxide

RL: USES (Uses)

(silica-rich, dewatering of porous, nitrogen compds.
 in, for low IR absorption)

IT Drying

(dewatering, of silica-rich porous glass, nitrogen
 compds. in, for low IR absorption)

IT 60676-86-0, Silica, vitreous

RL: USES (Uses)

(glass, dewatering of porous, nitrogen compds. in, for low
 IR absorption)

IT 7631-86-9

RL: USES (Uses)

(glass, silica-rich, dewatering of porous, nitrogen
 compds. in, for low IR absorption)

IT 50-01-1, Guanidine hydrochloride 57-13-6, Urea, uses and miscellaneous 100224-74-6

RL: USES (Uses)

(impregnation with, of porous silica-rich glass, for dewatering and low IR absorption)

L100 ANSWER 10 OF 16 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 1988:552356 HCAPLUS

DOCUMENT NUMBER: 109:152356

TITLE: Granular oxygen absorbent

INVENTOR(S): Inoue, Yoshiaki; Komatsu, Toshio

PATENT ASSIGNEE(S): Mitsubishi Gas Chemical Co., Inc., Japan

SOURCE: Ger. Offen., 10 pp.

CODEN: GWXXBX

DOCUMENT TYPE: Patent

LANGUAGE: German

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
-----	----	-----	-----	
DE 3804488	A1	19880825	DE 1988-3804488	1988 0212
DE 3804488	C2	19920514		
JP 63198962	A2	19880817	JP 1987-30680	1987 0214
JP 08011056	B4	19960207		
JP 01067252	A2	19890313	JP 1987-224082	1987 0909
US 4908151	A	19900313	US 1988-155283	1988 0212
PRIORITY APPLN. INFO.:			JP 1987-30680	A 1987 0214
			JP 1987-224082	A 1987 0909

AB A granular O absorbent comprises an unsatd. fatty acid and/or a fatty oil containing an unsatd. fatty acid, a transition metal or transition metal compound, and a basic substance. The transition metal can V, Cr, Mn, Co, Fe, Ni, Cu, or Zn. The basic substance can be an oxide, hydroxide, carbonate, bicarbonate, phosphate, or silicate of an alk. earth or alkali metal or Al; an alkaline earth or alkali metal salt or Al salt of an organic acid; or polyethylenimine, guanidine carbonate, melamine, 2,4,6-tri(dimethylaminomethyl)phenol, or α -Bu pyrrolidine. One effective composition comprises oleic acid, Fe oleate, and Ca(OH)₂ in weight ratio 1:1:0.2. Alternatively, the absorbent can comprise a compound of an unsatd. fatty acid including an unsatd. fatty acid or ester or metal salt of an unsatd. fatty acid; a basic substance as described above; and an adsorbent.

IT 144-55-8, Sodium bicarbonate, uses and miscellaneous

471-34-1, Calcium carbonate, uses and miscellaneous

14455-29-9, Aluminum carbonate 100224-74-6,

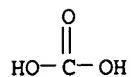
Guanidine carbonate

RL: TEM (Technical or engineered material use); USES (Uses)

(in granular absorbent for oxygen)

RN 144-55-8 HCAPLUS

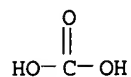
CN Carbonic acid monosodium salt (8CI, 9CI) (CA INDEX NAME)



● Na

RN 471-34-1 HCAPLUS

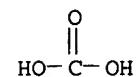
CN Carbonic acid calcium salt (1:1) (8CI, 9CI) (CA INDEX NAME)



● Ca

RN 14455-29-9 HCAPLUS

CN Carbonic acid, aluminum salt (3:2) (8CI, 9CI) (CA INDEX NAME)



● 2/3 Al

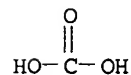
RN 100224-74-6 HCAPLUS

CN Carbonic acid, compd. with guanidine (9CI) (CA INDEX NAME)

CM 1

CRN 463-79-6

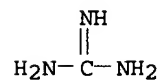
CMF C H2 O3



CM 2

CRN 113-00-8

CMF C H5 N3



IC ICM B01J020-22

ICS B01J023-76; B01J023-80; B01J021-12

ICA C07C057-03; C07C069-52
 CC 48-1 (Unit Operations and Processes)
 IT Alkali metal **hydroxides**
 Alkali metal oxides
 Alkaline earth **hydroxides**
 Alkaline earth oxides
 Silica gel, uses and miscellaneous
 Zeolites, uses and miscellaneous
 RL: TEM (Technical or engineered material use); USES (Uses)
 (in granular absorbent for oxygen)
 IT 60-33-3, Linoleic acid, uses and miscellaneous 108-78-1,
 Melamine, uses and miscellaneous 112-80-1, Oleic acid, uses and
 miscellaneous 112-80-1D, Oleic acid, iron and manganese salt
 144-55-8, Sodium bicarbonate, uses and miscellaneous
 463-79-6D, Carbonic acid, alkali and **alkaline** earth metal
 salts 471-34-1, Calcium carbonate, uses and
 miscellaneous 1305-62-0, Calcium **hydroxide**, uses and
 miscellaneous 1305-78-8, Calcium oxide, uses and miscellaneous
 1309-42-8, Magnesium **hydroxide** 1309-48-4, Magnesium
 oxide, uses and miscellaneous 1335-30-4, Aluminum silicate
 1343-98-2D, Silicic acid, alkali and **alkaline** earth metal
 salts 1344-28-1, Aluminum oxide, uses and miscellaneous
 7439-89-6, Iron, uses and miscellaneous 7439-96-5, Manganese,
 uses and miscellaneous 7440-02-0, Nickel, uses and miscellaneous
 7440-47-3, Chromium, uses and miscellaneous 7440-48-4, Cobalt,
 uses and miscellaneous 7440-50-8, Copper, uses and miscellaneous
 7440-62-2, Vanadium, uses and miscellaneous 7440-66-6, Zinc,
 uses and miscellaneous 7664-38-2D, Phosphoric acid, alkali and
alkaline earth metal salts 7784-30-7, Aluminum phosphate
 9002-98-6, Polyethylenimine 14455-29-9, Aluminum
 carbonate 21645-51-2, Aluminum **hydroxide**, uses and
 miscellaneous 100224-74-6, Guanidine
carbonate
 RL: TEM (Technical or engineered material use); USES (Uses)
 (in granular absorbent for oxygen)
 IT 90-72-2 3446-98-8
 RL: USES (Uses)
 (organic, alkali and **alkaline** earth metal and aluminum
 salts, in granular absorbent for oxygen)

L100 ANSWER 11 OF 16 HCAPLUS COPYRIGHT 2006 ACS on STN
 ACCESSION NUMBER: 1980:640271 HCAPLUS
 DOCUMENT NUMBER: 93:240271
 TITLE: Polymerization catalysts
 INVENTOR(S): Hoff, Raymond E.; Kenny, Eugene C., III
 PATENT ASSIGNEE(S): Chemplex Co., USA
 SOURCE: U.S., 7 pp. Cont. of U.S. Ser. No. 790,827,
 abandoned.
 CODEN: USXXAM
 DOCUMENT TYPE: Patent
 LANGUAGE: English
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
-----	----	-----	-----	
US 4206297	A	19800603	US 1978-922670	1978 0707
PRIORITY APPLN. INFO.:			US 1977-790827	A1 1977 0425

AB Porous particulate catalysts for olefin polymerization and copolymn. are
 prepared in several steps: an orthosilicate ester is

hydrolyzed in an acid catalyst-water solution, gelled, heated, and stirred to the desired surface area and pore size distribution, filtered, washed, dried, treated with a Cr oxide, and heat activated. Thus, Silbond 40 was added dropwise over 1 h to MeOH 175, H₂O 350, and HCl 24.5 mL, stirred for an addnl. 80 min, and cooled to 10. degree.. An aqueous guanidine carbonate solution was added over 2 h to change the pH to 6.75 and gel the mixture. The mixture was filtered and the gel stirred with 900 mL MeOH for 30 min, filtered, extracted with 900 mL acetone, dried, crushed, and sieved, yielding 37 g product. The product was heated in air fluidization at 650. degree., mixed with CrO₃ and activated in air at 800. degree.. The catalyst had reactivity 1970 g/g catalyst/h and productivity 1970 g/g catalyst in the polymerization of ethylene in isobutane at 550 psig to give polyethylene [9002-88-4] with melt index 2.6 (ASTM D 1238-65 T, Condition E). Water (600 mL) was added to break up the gel, the pH was adjusted to 5.5, the mixture was heated to 90. degree. for 1 h, cooled for 17 h, and reheated to 90. degree. for 2.5 h.

IC C08F004-78; B01J021-08

INCL 526106000

CC 35-4 (Synthetic High Polymers)

ST polyethylene viscous catalyst **prepn**; orthosilicate catalyst olefin polymn; catalyst orthosilicate **prepn** olefin polymn; chromium catalyst olefin polymn; polymn catalyst orthosilicate supported chromium

IT Polymerization catalysts
(silica-supported chromium, for olefins)

IT 1189-85-1 1333-82-0

RL: CAT (Catalyst use); USES (Uses)

(catalysts, silica-supported, for polymerization of olefins)

IT 9002-88-4P

RL: PREP (Preparation)

(preparation of, silica-supported chromium catalyst for)

L100 ANSWER 12 OF 16 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 1976:139593 HCAPLUS

DOCUMENT NUMBER: 84:139593

TITLE: Refractory laminate based on positive
sols and refractory materials
containing chemical setting agents

INVENTOR(S): Moore, Earl Phillip, Jr.

PATENT ASSIGNEE(S): du Pont de Nemours, E. I., and Co., USA

SOURCE: U.S., 12 pp.
CODEN: USXXAM

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 7

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
-----	----	-----	-----	
US 3894572	A	19750715	US 1973-381237	1973 0720
GB 1338631	A	19731128	GB 1971-18004	1971 0528
US 3748157	A	19730724	US 1971-148965	1971 0601
US 3748156	A	19730724	US 1971-148966	

				1971 0601
US 3751276	A	19730807	US 1971-148956	
				1971 0601
US 3752681	A	19730814	US 1971-148957	
				1971 0601
US 3752689	A	19730814	US 1971-148960	
				1971 0601
US 3752680	A	19730814	US 1971-148962	
				1971 0601
US 3752679	A	19730814	US 1971-148963	
				1971 0601
FR 2112172	A5	19720616	FR 1971-22866	
				1971 0623
FR 2112172	B1	19740531		
SE 382164	B	19760119	SE 1971-8164	
				1971 0623
BE 768971	A1	19711103	BE 1971-105030	
				1971 0624
CA 947931	A1	19740528	CA 1971-116590	
				1971 0624
CA 947933	A1	19740528	CA 1971-116592	
				1971 0624
CA 947935	A1	19740528	CA 1971-116596	
				1971 0624
CA 947936	A1	19740528	CA 1971-116597	
				1971 0624
CA 947937	A1	19740528	CA 1971-116598	
				1971 0624
CA 947938	A1	19740528	CA 1971-116599	
				1971 0624
CA 947939	A1	19740528	CA 1971-116600	
				1971 0624
CA 959357	A1	19741217	CA 1971-116594	
				1971 0624
CH 573366	A	19760315	CH 1971-9301	
				1971 0624
PRIORITY APPLN. INFO.:			US 1970-49909	A2
				1970 0625
			US 1971-148961	A3
				1971 0601
			US 1970-49906	A
				1970 0625

US 1970-49907	A	1970 0625
US 1970-49908	A	1970 0625
US 1970-49910	A	1970 0625
US 1970-49911	A	1970 0625
US 1970-49912	A	1970 0625
US 1970-49913	A	1970 0625
US 1970-49914	A	1970 0625
US 1970-49915	A	1970 0625
US 1970-49916	A	1970 0625
US 1971-148956	A	1971 0601
US 1971-148957	A	1971 0601
US 1971-148960	A	1971 0601
US 1971-148962	A	1971 0601
US 1971-148965	A	1971 0601
US 1971-148966	A	1971 0601
US 1971-149963	A	1971 0601

AB A rapid process is disclosed for **forming** refractory laminates, particularly investment molds, by repeated cycles of

dipping a pattern or other substrate into an aqueous sol of pos. charged colloidal refractory containing a chemical setting agent, or with 2 dips, the 2nd into a slurry of coarser refractory particles containing the setting agent, and drying for setting before the next cycle. Preferred refractory sols are those of fused SiO₂, molochite, Al silicate, or zircon. Suitable slurries for mold production are obtained by mixing 1 of these pulverized refractories with 25-50 weight % Pos. Sol 130 M [7631-86-9] containing SiO₂ 26.4, Al₂O₃ 4.2, Cl 1, MgO 0.23%, and balance water, which at 6-7 pH coats the refractory particles. The chemical setting agent required for rapid hardening of the slurry on the mold or other substrate after each dip, can be an organic or inorg. base such as methylamine or NaOH; a monofunctional organic acid or salt having 6-24 C atoms/mol. such as Na lauryl sulfate [151-21-3]; a polyfunctional acid or salt such as methyl vinyl ether; or a neg. colloid, such as SiO₂ having 5-16 μ particle size, or bentonite, at 8.5-10 pH. Preferably the amount of this agent is 5-15% of the refractory weight. No cracks or other defects appeared in the molds after completion in about 20 min, air drying 24 hr, melting out an expendable pattern, and burning off C for 3 min at 1800. degree.F.

IT 593-85-1 1344-09-8 7631-86-9, uses and miscellaneous

RL: USES (Uses)
(in shell mold manufacture)

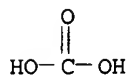
RN 593-85-1 HCAPLUS

CN Carbonic acid, compd. with guanidine (1:2) (6CI, 7CI, 8CI, 9CI)
(CA INDEX NAME)

CM 1

CRN 463-79-6

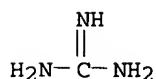
CMF C H2 O3



CM 2

CRN 113-00-8

CMF C H5 N3



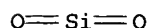
RN 1344-09-8 HCAPLUS

CN Silicic acid, sodium salt (8CI, 9CI) (CA INDEX NAME)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

RN 7631-86-9 HCAPLUS

CN Silica (6CI, 7CI, 8CI, 9CI) (CA INDEX NAME)



IC B29C

INCL 164026000
CC 56-1 (Nonferrous Metals and Alloys)
ST mold shell **sol** setting agent
IT Molds (**forms**)
(shell, from pos. charged **colloidal** refractories and
chemical setting agents)
IT 79-14-1, uses and miscellaneous 151-21-3, uses and miscellaneous
593-85-1 618-39-3 877-24-7 1309-42-8 1310-65-2
1331-61-9 1344-09-8 1639-66-3 3575-31-3 7558-80-7
7631-86-9, uses and miscellaneous 7783-20-2, uses and
miscellaneous 9003-01-4 9011-16-9 13429-27-1 14047-56-4
14258-49-2 58823-46-4
RL: USES (Uses)
(in shell mold **manufacture**)

L100 ANSWER 13 OF 16 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 1971:543295 HCAPLUS
DOCUMENT NUMBER: 75:143295
TITLE: Guanidine silicate compositions
INVENTOR(S): Yates, Paul C.
PATENT ASSIGNEE(S): du Pont de Nemours, E. I., and Co.
SOURCE: U.S., 9 pp. Division of U.S. 3,475,375 (CA
72;15342y)
CODEN: USXXAM
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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US 3597248	A	19710803	US 1969-871104	1969 0806
PRIORITY APPLN. INFO.:			US 1969-871104	A 1969 0806

AB Amorphous, water-soluble guanidine silicates having
molar ratios of guanidinium ions to silicate
ions of 1.5-0.65 were prepared by treating guanidine
hydroxide (I) with colloidal silica at
25-90° at a pH >11. Thus, 3014 g of Ca(OH)2 was
added to a solution of 7014 g guanidine carbonate
in 28 l. H2O, the mixture was stirred 14 hr at room temperature,
filtered, and washed to give 33,019 g of filtrate containing 1.98
moles I/100 g. To this was added 4218 g of hydrated amorphous
silica of 93% SiO2 and 7% H2O, having a
surface area of 121 m2/g. The mixture was
stirred, heated from 30 to 70° during 3
hr, cooled, and filtered. The filtrate was concentrated at 31 in. of
vacuum and 35-40° to 12 l. The mole
ratio of guanidine to silica was 1.075.
Complete drying of this solution gave an amorphous, water-clear,
water-soluble, glassy film. These materials are useful as
adhesives, binders (foundry application), and film-forming
agents.

IC C04B; C09D
INCL 106074000
CC 55 (Ferrous Metals and Alloys)
ST guanidine silicate **prepn**; foundry guanidine silicate
prepn; binder guanidine silicate **prepn**; adhesive
guanidine silicate **prepn**; film **forming**
guanidine silicate
IT Molds (**forms**)

(binders for cores and, guanidine silicate)
IT Adhesives, preparation
Coating materials
(guanidine silicate)

L100 ANSWER 14 OF 16 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 1967:432534 HCAPLUS

DOCUMENT NUMBER: 67:32534

TITLE: Nitrofuran derivatives. X. Synthesis
of 2-(4-bromo-3-oxo-1-butenyl)-5-nitrofuran
and its derivatives

AUTHOR(S): Ito, Masumi

CORPORATE SOURCE: Fujisawa Pharm. Co., Ltd., Osada, Japan

SOURCE: Yakugaku Zasshi (1967), 87(3), 279-84

CODEN: YKKZAJ; ISSN: 0031-6903

DOCUMENT TYPE: Journal

LANGUAGE: Japanese

GI For diagram(s), see printed CA Issue.

AB cf. CA 67: 3015c. Br (1.6 g.) in 15 ml. AcOH is dropped into a
70° mixture of 1.8 g. 2-(3-oxo-1-butenyl)-5-
nitrofuran (I) and 15 ml. AcOH under N and the mixture stirred for 2
hrs. to give 1.3 g. 2-(4-bromo-3-oxo-1-butenyl)-5-nitrofuran(II),
m. 121.5-2.0° (EtOH). Bromination of di-Et
3-(5-nitro-2-furyl)acryloylmalonate also gives 30.3% II with a
small amount of 2-(2-bromo-3-oxo-1-butenyl)-5-nitrofuran(IV), m.
136-7°. Br (3.6 g.) in 20 ml. AcOH is dropped
into a 70° mixture of 2.0 g. I and 20 ml. AcOH
under N and the mixture stirred 2 hrs. to give 0.9 g. IV. Separation of
II and IV from their mixture can be carried out by silica
gel chromatog. Br (3.2 g.) in 50 ml. CHCl₃ is dropped into
a 47-8° mixture of 6.5 g. III and 50 ml. CHCl₃
under N, the mixture stirred 2 hrs., and concentrated in vacuo. The
residual oil is dissolved in 50 ml. dioxane and treated with 1.0
g. NH₂NH₂.H₂O and 2.8 g. AcONa.3H₂O to give 2.0 g.
3-(5-nitro-2-furyl)acryloylhydrazine, m. 195°
(decomposition). II (0.5 g.) in 30 ml. Me₂CO is refluxed 1 hr. with
0.25 g. guanidine carbonate, 2.0 ml. 10% HCl,
and 2.0 ml. H₂O to give 0.3 g. 2-(4-chloro-3-oxo-1-butenyl)-5-
nitrofuran, m. 136.5-7.5° (EtOH). The use of
AcOH instead of HCl gives brown 2-(4-acetyloxy-3-oxo-1-butenyl)-5-
nitrofuran, m. 130-1° (EtOH).

CC 27 (Heterocyclic Compounds (One Hetero Atom))

IT 609-39-2DP, Furan, 2-nitro-, derivs. 946-95-2P 4579-66-2P

5564-99-8P 13225-57-5P 14497-60-0P 14498-72-7P

RL: SPN (Synthetic preparation); PREP (Preparation)

(preparation of)

L100 ANSWER 15 OF 16 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 1967:57595 HCAPLUS

DOCUMENT NUMBER: 66:57595

TITLE: Sand consolidation method

INVENTOR(S): Spain, Horace H.

PATENT ASSIGNEE(S): Esso Production Research Co.

SOURCE: U.S., 4 pp.

CODEN: USXXAM

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 3297086		19670110	US 1962-183751	1962 0330

PRIORITY APPLN. INFO.:

US

1962
0330

AB An improved sand consolidation is described in which an amino-functional organosilane is injected into the **formations** to be consolidated prior to introduction of thermosetting plastics or resins, which set and bind the sand particles of the **formations** together. Also, critical catalyst **proportions** are selected to achieve higher plastic consolidated sand compressive strengths. The preferred amino-functional organosilane compound is Dow Corning Z-6020 [(2-aminoethylaminopropyl)trimethoxysilane] and related compds., although operable compds. include 1-trimethoxy-2-aminoethyl-2-aminopropyldisilane and related compds. The preferred thermosetting plastics or resins are reaction **products** of a water-soluble aldehyde and a low-mol.-weight hydroxy aryl compound, such as the phenol-formaldehyde resins, which are catalyzed by an **alkaline** or acidic catalyst. The preferred catalyst system is a mixture of **guanidine carbonate** and NaOH in a weight **ratio** ranging from 7:1 to 10:1. Thus, **silica** sand was packed in a plastic tube. The sand was saturated with salt water and flooded with oil to simulate an oil-reservoir sand. Then a solution consisting of H₂O containing 5 weight NaCl and 1 volume % of Z-6020 was passed through the sand. A reactive resin solution consisting of 100 ml. of formalin (37.5 weight % HCHO, 13.5% MeOH), 20 ml. mixed m-and p-cresol, 18 g. **guanidine carbonate**, and 2.24 g. NaOH was then flowed into the sand. 1,3,5-Xylenol (1-10% by weight) was added to provide for the specific **formation temps.** A second plastic tube was packed with sand and treated in the same manner as the first one, except that the salt water entering the sand immediately prior to introduction of the resin solution contained no Z-6020. Each of the sand-packed tubes was placed in a thermostatted bath at 110. **degree.F.** to cure the resin. Compressive strengths of the treated sands were then measured. The compressive strength of the first sand, which had received the Z-6020 preflush, was 920 psi.; and the compressive strength of the sand which was not treated with the silane was only 370 psi. Addnl. examples are given from field applications of **base** catalyzed plastic in oil wells.

INCL 166033000

CC 51 (Petroleum, Petroleum Derivatives, and Related Products)

L100 ANSWER 16 OF 16 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 1965:44193 HCAPLUS

DOCUMENT NUMBER: 62:44193

ORIGINAL REFERENCE NO.: 62:7856h,7857a-e

TITLE: Analogs of tetrahydrofolic acid. XI.

Synthesis and evaluation of
p-[[N-(2-amino-4-hydroxy-6-methyl-5-
pyrimidyl)carbamoylmethyl]amino]benzoyl-L-
glutamic acid

AUTHOR(S): Baker, B. R.; Sachdev, Krishna

CORPORATE SOURCE: State Univ. of New York, Buffalo

SOURCE: Journal of Pharmaceutical Sciences (1964),
53(9), 1020-3

CODEN: JPMSAE; ISSN: 0022-3549

DOCUMENT TYPE: Journal

LANGUAGE: English

OTHER SOURCE(S): CASREACT 62:44193

AB cf. CA 60, 4248c; 62, 7750g. [M.ps. below 230°
were corrected; **ir** spectra were determined in KBr disks; thin
layer chromatography (TLC) was performed on **silica**
gel on glass plates with MeOH as the developing agent

(spots were detected with iodine vapor); concentration of all solns. was performed by spin-evaporation in vacuo at 50-70° (bath)]. By the reaction of PhN:NCl with AcCH₂CO₂Et, followed by reductive acetylation, was prepared 76% crude crystalline AcCH(NH-Ac)CO₂Et (I). Crude I (0.93 g.), 12 ml. tert-BuOH, and 0.45 g. guanidine carbonate refluxed and stirred (magnetic) 10 hrs., the mixture evaporated, and the residue triturated with 20 ml. cold H₂O gave 0.67 g. 5-acetamido-2-amino-4-hydroxy-6-methylpyrimidine hydrate (II.H₂O), m. 305-8. degree. (decomposition). Recrystn. of an identical sample, prepared in EtOH as reaction solvent, from EtOH gave II.H₂O, m. 308-10° (decomposition), traveling as a single spot on TLC. II.H₂O (2.0 g.) in 20 ml. 6N HCl refluxed 30 min. and evaporated and the residue triturated with MeOH gave 1.6 g. 2,5-diamino-4-hydroxy-6-methylpyrimidine-HCl (III.-HCl), m. 255-60° (decomposition). Neutralization of a concentrated aqueous solution of III.HCl with NaHCO₃ gave III, m. 270-5. degree. (decomposition), traveling as a single spot on TLC, quite sol. in H₂O. To a stirred suspension of 1.41 g. III.HCl in 50 ml. H₂O containing 3.8 g. NaHCO₃ was added 3.03 g. BrCH₂COBr (IV), the mixture stirred 7 hrs. at ambient temperature, and the precipitate collected to give 1.28 g. 5-bromoacetamido analog (V) of III, partially m. .apprx.255° but not completely below 320° the filtrate treated with 1.00 g. NaHCO₃ and 1.3 g. IV and stirred 4 hrs. deposited 0.1 g. V; anal. IV m. above 300° (absolute EtOH), traveling as a single spot on TLC. V (522 mg.) in 5 ml. Me₂SO kept 2 days at ambient temperature with 0.37 ml. PhNH₂ in a stoppered flask and the solution diluted with 20 ml. cold H₂O and kept 20 min. in an ice bath deposited 400 mg. hydrated 5-anilinoacetamido analog (VI) of III, m. 200-5° (decomposition), soluble in 0.1N HCl; hydrated VI recrystd. twice from aqueous EtOH gave VI.H₂O, m. 210. degree. (decomposition), the amount of hydration depending on the drying conditions. V (0.783 g.) and 1.20 g. p-aminobenzoyl-L-glutamic acid (VII) in 10 ml. Me₂SO kept 3 days at ambient temperature in a stoppered flask, the solution diluted with 40 ml. H₂O and adjusted to pH 3.8 with 1% aqueous NaHCO₃, the precipitate collected by centrifugation, washed with H₂O, and dissolved in the min. 1% aqueous NaHCO₃, and the solution filtered and acidified with AcOH gave after centrifuging 0.175 g. title compound (VIII), which recrystd. from MeOH and dried 24 hrs. in vacuo at 100° over P₂O₅ gave anal. VIII, powder, having no m.p., giving a negligible Bratton-Marshall test for diazotizable amine; it did not give a resolved ir spectrum. No better yields were obtained with dry HCONMe₂ as solvent or when the reaction was carried out 5 hrs. at 80-90° in Me₂SO; in the latter case, the product was also impure. VIII was a poor inhibitor of both dihydrofolic reductase and 5, 10-methylenetetrahydrofolate dehydrogenase, showing inhibition of about the order obtained with VII. Uv and ir spectral data were given for most of the compds. prepared

CC 44 (Amino Acids, Peptides, and Proteins)

IT Spectra, infrared

(of 5-acetamido-2-amino-6-methyl-4-pyrimidinolderivs.)

IT 2480-13-9, 4-Pyrimidinol, 5-acetamido-2-amino-6-methyl-
2480-14-0, 4-Pyrimidinol, 2,5-diamino-6-methyl-, hydrochloride
2480-15-1, 4-Pyrimidinol, 2-amino-5-(2-bromoacetamido)-6-methyl-
2480-16-2, 4-Pyrimidinol, 2-amino-5-(2-anilinoacetamido)-6-methyl-
821788-00-5, Glutamic acid, N[p[[[(2-amino-4-hydroxy-6-methyl-5-pyrimidinyl) carbamoyl]methyl]amino]-benzoyl]-,L-
(preparation of)

=>